

## **Appendix 2 – Model Facility Characteristics**

<b>Facility Type</b>	Commercial	Commercial	Commercial
<b>Biological Safety Level</b>	2	2	2
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	50	50	25
<b>General Characteristics</b>			
Number of Employees with Access to Select Agents	3	14	25
Turnover Rate	10%	0.1	10%
Number of New Employees per Year	1	4	7
Number of Employees with Access to Select Agent Areas but not to the Select Agents	5	20	40
Number of Entity Owners	0	4	12
Number of Times that Select Agents Are Accessed Per Year			
Toxins	24	200	200
Biological Agents	24	150	260
Number of Buildings in Which Select Agents Are Used	1	2	4
Number of Floors on Which Select Agents Are Used	1	2	4
Number of Rooms Select Agents Used or Stored	2	3	15
Toxins Used at the Facility	Yes	Yes	Yes
Number of Select Agents	3	10	20
<b>Registration</b>			
Number of Registration Amendments Per Year	0.5	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33
<b>Safety Characteristics</b>			
Biological Safety Level	2	2	2
Number of RO Inspections Per Year	2	2	2
Safety Plan In Place	Yes	Yes	Yes
Inventory Tracking System	No	Yes	Yes
<b>Security Characteristics</b>			
Baseline Security Measures In Place			
Guard at Entrance	No	Yes	Yes
Intrusion Detection System (e.g., alarm)	Yes	Yes	Yes
Card Key System	No	No	Yes
Locks on Select Agent Storage Cabinets	No	Yes	Yes
Select Agent Sign-out/Sign-in System	No	Yes	Yes
Risk Based Security Plan In Place	No	No	No

<b>Facility Type</b>	Commercial	Commercial	Commercial
<b>Biological Safety Level</b>	2	2	2
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	50	50	25
Non-Risk Based Security Plan In Place	Yes	Yes	Yes
Number of Times Security System is Performance Tested Per Year	2	3	4
Number of Times Visitors are On Site Per Year	6	12	24
Number of Security Personnel	1	2	3
<b>Baseline Background Checks</b>			
Criminal Only	No	Yes	Yes
Government Secret	No	No	No
Number of Existing Staff Requiring Background Checks	6	24	45
<b>Training</b>			
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	1	4	7
<b>Transfers and Notification</b>			
Number of Transfers Per Year	1	4	10

<b>Facility Type</b>	Commercial	Commercial	Commercial
<b>Biological Safety Level</b>	2-3	2-3	2-3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	50	50	25
<b>General Characteristics</b>			
Number of Employees with Access to Select Agents	5	15	25
Turnover Rate	0.1	10%	0.1
Number of New Employees per Year	3	5	8
Number of Employees with Access to Select Agent Areas but not to the Select Agents	20	30	50
Number of Entity Owners	0	4	12
Number of Times that Select Agents Are Accessed Per Year			
Toxins	50	200	250
Biological Agents	50	200	260
Number of Buildings in Which Select Agents Are Used	1	2	5
Number of Floors on Which Select Agents Are Used	1	2	5
Number of Rooms Select Agents Used or Stored	2	4	8
Toxins Used at the Facility	Yes	Yes	Yes
Number of Select Agents	3	10	20
<b>Registration</b>			
Number of Registration Amendments Per Year	0.5	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33
<b>Safety Characteristics</b>			
Biological Safety Level	2-3	2-3	2-3
Number of RO Inspections Per Year	3	3	3
Safety Plan In Place	Yes	Yes	Yes
Inventory Tracking System	Yes	Yes	Yes
<b>Security Characteristics</b>			
Baseline Security Measures In Place			
Guard at Entrance	Yes	Yes	Yes
Intrusion Detection System (e.g., alarm)	Yes	Yes	Yes
Card Key System	Yes	Yes	Yes
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No

<b>Facility Type</b>	Commercial	Commercial	Commercial
<b>Biological Safety Level</b>	2-3	2-3	2-3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	50	50	25
Non-Risk Based Security Plan In Place	Yes	Yes	Yes
Number of Times Security System is Performance Tested Per Year	2	3	4
Number of Times Visitors are On Site Per Year	6	12	24
Number of Security Personnel	1	1	3
<b>Baseline Background Checks</b>			
Criminal Only	No	No	Yes
Government Secret	No	No	Yes
Number of Existing Staff Requiring Background Checks	15	30	50
<b>Training</b>			
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	3	5	8
<b>Transfers and Notification</b>			
Number of Transfers Per Year	2	5	10

<b>Facility Type</b>	Commercial	Commercial	Commercial
<b>Biological Safety Level</b>	3	3	3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	50	50	25
<b>General Characteristics</b>			
Number of Employees with Access to Select Agents	3	15	25
Turnover Rate	10%	0.1	5%
Number of New Employees per Year	1	3	3
Number of Employees with Access to Select Agent Areas but not to the Select Agents	3	15	30
Number of Entity Owners	0	4	12
Number of Times that Select Agents Are Accessed Per Year			
Toxins	0	0	200
Biological Agents	52	200	260
Number of Buildings in Which Select Agents Are Used	1	2	3
Number of Floors on Which Select Agents Are Used	1	2	3
Number of Rooms Select Agents Used or Stored	1	5	10
Toxins Used at the Facility	No	No	Yes
Number of Select Agents	3	10	20
<b>Registration</b>			
Number of Registration Amendments Per Year	0.5	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33
<b>Safety Characteristics</b>			
Biological Safety Level	3	3	3
Number of RO Inspections Per Year	3	3	3
Safety Plan In Place	Yes	Yes	Yes
Inventory Tracking System	Yes	Yes	Yes
<b>Security Characteristics</b>			
Baseline Security Measures In Place			
Guard at Entrance	Yes	Yes	Yes
Intrusion Detection System (e.g., alarm)	Yes	Yes	Yes
Card Key System	Yes	Yes	Yes
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No

<b>Facility Type</b>	Commercial	Commercial	Commercial
<b>Biological Safety Level</b>	3	3	3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	50	50	25
Non-Risk Based Security Plan In Place	Yes	Yes	Yes
Number of Times Security System is Performance Tested Per Year	2	3	4
Number of Times Visitors are On Site Per Year	6	12	24
Number of Security Personnel	1	1	5
<b>Baseline Background Checks</b>			
Criminal Only	Yes	No	Yes
Government Secret	No	No	Yes
Number of Existing Staff Requiring Background Checks	5	23	40
<b>Training</b>			
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	1	3	3
<b>Transfers and Notification</b>			
Number of Transfers Per Year	5	8	12

<b>Facility Type</b>	Federal	Federal	Federal	Federal
<b>Biological Safety Level</b>	2	2-3	3	4
<b>Facility Size</b>	L	L	L	L
<b>Number of Facilities</b>	24	24	24	3
<b>General Characteristics</b>				
Number of Employees with Access to Select Agents	25	30	25	10
Turnover Rate	0.07	7%	0.07	10%
Number of New Employees per Year	3	3	3	1
Number of Employees with Access to Select Agent Areas but not to the Select Agents	5	5	5	0
Number of Entity Owners	0	0	0	0
Number of Times that Select Agents Are Accessed Per Year				
Toxins	300	300	300	150
Biological Agents	200	300	300	200
Number of Buildings in Which Select Agents Are Used	1	1	1	1
Number of Floors on Which Select Agents Are Used	1	1	1	1
Number of Rooms Select Agents Used or Stored	8	8	8	4
Toxins Used at the Facility	Yes	Yes	Yes	Yes
Number of Select Agents	20	20	20	20
<b>Registration</b>				
Number of Registration Amendments Per Year	2	2	2	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33	0.33
<b>Safety Characteristics</b>				
Biological Safety Level	2	2-3	3	4
Number of RO Inspections Per Year	2	3	3	4
Safety Plan In Place	Yes	Yes	Yes	Yes
Inventory Tracking System	Yes	Yes	Yes	Yes
<b>Security Characteristics</b>				
Baseline Security Measures In Place				
Guard at Entrance	Yes	Yes	Yes	Yes
Intrusion Detection System (e.g., alarm)	No	Yes	Yes	Yes
Card Key System	Yes	Yes	Yes	Yes
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	Yes	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No	Yes



<b>Facility Type</b>	Federal	Federal	Federal	Federal
<b>Biological Safety Level</b>	2	2-3	3	4
<b>Facility Size</b>	L	L	L	L
<b>Number of Facilities</b>	24	24	24	3
Non-Risk Based Security Plan In Place	Yes	Yes	Yes	Yes
Number of Times Security System is Performance Tested Per Year	4	4	4	4
Number of Times Visitors are On Site Per Year	24	24	24	24
Number of Security Personnel	3	3	2	3
<b>Baseline Background Checks</b>				
Criminal Only	Yes	Yes	Yes	Yes
Government Secret	Yes	Yes	Yes	Yes
Number of Existing Staff Requiring Background Checks	28	33	28	10
<b>Training</b>				
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	3	3	3	1
<b>Transfers and Notification</b>				
Number of Transfers Per Year	25	40	35	2

<b>Facility Type</b>	Research Institution	Research Institution	Research Institution	Research Institution
<b>Biological Safety Level</b>	2	2-3	3	4
<b>Facility Size</b>	M	M	M	L
<b>Number of Facilities</b>	20	19	19	1
<b>General Characteristics</b>				
Number of Employees with Access to Select Agents	20	30	25	10
Turnover Rate	0.07	13%	0.1	10%
Number of New Employees per Year	5	6	3	2
Number of Employees with Access to Select Agent Areas but not to the Select Agents	50	10	5	5
Number of Entity Owners	4	4	4	8
Number of Times that Select Agents Are Accessed Per Year				
Toxins	0	0	150	150
Biological Agents	175	150	200	200
Number of Buildings in Which Select Agents Are Used	2	1	1	1
Number of Floors on Which Select Agents Are Used	2	1	1	1
Number of Rooms Select Agents Used or Stored	4	28	15	3
Toxins Used at the Facility	No	No	Yes	Yes
Number of Select Agents	10	10	10	20
<b>Registration</b>				
Number of Registration Amendments Per Year	1	1	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33	0.33
<b>Safety Characteristics</b>				
Biological Safety Level	2	2-3	3	4
Number of RO Inspections Per Year	2	3	3	4
Safety Plan In Place	Yes	Yes	Yes	Yes
Inventory Tracking System	No	Yes	Yes	Yes
<b>Security Characteristics</b>				
Baseline Security Measures In Place				
Guard at Entrance	Yes	Yes	Yes	Yes
Intrusion Detection System (e.g., alarm)	Yes	Yes	Yes	Yes
Card Key System	Yes	Yes	Yes	Yes
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	No	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No	Yes

<b>Facility Type</b>	Research Institution	Research Institution	Research Institution	Research Institution
<b>Biological Safety Level</b>	2	2-3	3	4
<b>Facility Size</b>	M	M	M	L
<b>Number of Facilities</b>	20	19	19	1
Non-Risk Based Security Plan In Place	Yes	Yes	Yes	Yes
Number of Times Security System is Performance Tested Per Year	3	3	3	4
Number of Times Visitors are On Site Per Year	12	12	12	24
Number of Security Personnel	3	3	3	3
<b>Baseline Background Checks</b>				
Criminal Only	No	No	Yes	Yes
Government Secret	No	No	Yes	Yes
Number of Existing Staff Requiring Background Checks	45	35	28	13
<b>Training</b>				
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	5	6	3	2
<b>Transfers and Notification</b>				
Number of Transfers Per Year	5	12	10	2

Facility Type	State	State	State	State
Biological Safety Level	Out of Compliance	2	2-3	3
Facility Size	M	M	M	M
Number of Facilities	0	8	8	7
<b>General Characteristics</b>				
Number of Employees with Access to Select Agents	10	15	20	15
Turnover Rate	0.05	5%	0.07	5%
Number of New Employees per Year	2	2	3	1
Number of Employees with Access to Select Agent Areas but not to the Select Agents	20	25	20	5
Number of Entity Owners	0	0	0	0
Number of Times that Select Agents Are Accessed Per Year				
Toxins	100	200	0	100
Biological Agents	50	60	200	100
Number of Buildings in Which Select Agents Are Used	2	2	1	1
Number of Floors on Which Select Agents Are Used	2	3	1	1
Number of Rooms Select Agents Used or Stored	4	5	5	4
Toxins Used at the Facility	Yes	Yes	No	Yes
Number of Select Agents	10	10	10	10
<b>Registration</b>				
Number of Registration Amendments Per Year	1	1	1	1
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33	0.33
<b>Safety Characteristics</b>				
Biological Safety Level	Out of Compliance	2	2-3	3
Number of RO Inspections Per Year	2	2	3	3
Safety Plan In Place	No	No	Yes	Yes
Inventory Tracking System	No	Yes	Yes	Yes
<b>Security Characteristics</b>				
Baseline Security Measures In Place				
Guard at Entrance	No	No	Yes	Yes
Intrusion Detection System (e.g., alarm)	No	No	Yes	Yes
Card Key System	No	Yes	Yes	Yes
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	No	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No	No

<b>Facility Type</b>	State	State	State	State
<b>Biological Safety Level</b>	Out of Compliance	2	2-3	3
<b>Facility Size</b>	M	M	M	M
<b>Number of Facilities</b>	0	8	8	7
Non-Risk Based Security Plan In Place	No	No	No	No
Number of Times Security System is Performance Tested Per Year	2	2	2	2
Number of Times Visitors are On Site Per Year	12	12	12	12
Number of Security Personnel	2	2	2	2
<b>Baseline Background Checks</b>				
Criminal Only	No	No	No	No
Government Secret	No	No	No	No
Number of Existing Staff Requiring Background Checks	20	28	30	18
<b>Training</b>				
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	2	2	3	1
<b>Transfers and Notification</b>				
Number of Transfers Per Year	5	5	5	10

<b>Facility Type</b>	<b>Out of Compliance</b>	<b>University</b>	<b>University</b>	<b>University</b>
<b>Biological Safety Level</b>	University	2	2	2
<b>Facility Size</b>	M	S	M	L
<b>Number of Facilities</b>	49	33	33	17
<b>General Characteristics</b>				
Number of Employees with Access to Select Agents	50	8	50	80
Turnover Rate	15%	0.1	10%	0.1
Number of New Employees per Year	10	2	6	9
Number of Employees with Access to Select Agent Areas but not to the Select Agents	15	10	8	10
Number of Entity Owners	10	8	10	12
Number of Times that Select Agents Are Accessed Per Year				
Toxins	200	130	200	300
Biological Agents	260	260	260	350
Number of Buildings in Which Select Agents Are Used	3	1	3	4
Number of Floors on Which Select Agents Are Used	3	1	3	4
Number of Rooms Select Agents Used or Stored	12	3	12	18
Toxins Used at the Facility	Yes	Yes	Yes	Yes
Number of Select Agents	10	3	10	20
<b>Registration</b>				
Number of Registration Amendments Per Year	1	0.5	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33	0.33
<b>Safety Characteristics</b>				
Biological Safety Level	Out of Compliance	2	2	2
Number of RO Inspections Per Year	2	2	2	2
Safety Plan In Place	No	Yes	Yes	Yes
Inventory Tracking System	No	Yes	Yes	Yes
<b>Security Characteristics</b>				
Baseline Security Measures In Place				
Guard at Entrance	No	No	No	No
Intrusion Detection System (e.g., alarm)	No	No	No	No
Card Key System	No	No	No	No
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	No	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No	No

<b>Facility Type</b>	Out of Compliance	University	University	University
<b>Biological Safety Level</b>	University	2	2	2
<b>Facility Size</b>	M	S	M	L
<b>Number of Facilities</b>	49	33	33	17
Non-Risk Based Security Plan In Place	No	No	No	No
Number of Times Security System is Performance Tested Per Year	2	1	2	2
Number of Times Visitors are On Site Per Year	12	6	12	24
Number of Security Personnel	2	5	5	8
<b>Baseline Background Checks</b>				
Criminal Only	No	No	No	No
Government Secret	No	No	No	No
Number of Existing Staff Requiring Background Checks	58	13	54	85
<b>Training</b>				
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	10	2	6	9
<b>Transfers and Notification</b>				
Number of Transfers Per Year	4	2	4	8

<b>Facility Type</b>	University	University	University
<b>Biological Safety Level</b>	2-3	2-3	2-3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	33	33	17
<b>General Characteristics</b>			
Number of Employees with Access to Select Agents	7	40	100
Turnover Rate	15%	0.15	10%
Number of New Employees per Year	2	8	12
Number of Employees with Access to Select Agent Areas but not to the Select Agents	0	10	12
Number of Entity Owners	8	10	12
Number of Times that Select Agents Are Accessed Per Year			
Toxins	100	150	400
Biological Agents	100	150	400
Number of Buildings in Which Select Agents Are Used	1	12	4
Number of Floors on Which Select Agents Are Used	1	12	5
Number of Rooms Select Agents Used or Stored	1	15	20
Toxins Used at the Facility	Yes	Yes	Yes
Number of Select Agents	3	10	20
<b>Registration</b>			
Number of Registration Amendments Per Year	0.5	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33
<b>Safety Characteristics</b>			
Biological Safety Level	2-3	2-3	2-3
Number of RO Inspections Per Year	3	3	3
Safety Plan In Place	Yes	Yes	Yes
Inventory Tracking System	Yes	Yes	Yes
<b>Security Characteristics</b>			
Baseline Security Measures In Place			
Guard at Entrance	Yes	No	No
Intrusion Detection System (e.g., alarm)	No	No	No
Card Key System	Yes	No	No
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No



<b>Facility Type</b>	University	University	University
<b>Biological Safety Level</b>	2-3	2-3	2-3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	33	33	17
Non-Risk Based Security Plan In Place	No	No	No
Number of Times Security System is Performance Tested Per Year	1	2	2
Number of Times Visitors are On Site Per Year	6	12	24
Number of Security Personnel	3	5	10
<b>Baseline Background Checks</b>			
Criminal Only	No	Yes	Yes
Government Secret	No	No	No
Number of Existing Staff Requiring Background Checks	7	45	106
<b>Training</b>			
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	2	8	12
<b>Transfers and Notification</b>			
Number of Transfers Per Year	0	1	8

<b>Facility Type</b>	University	University	University
<b>Biological Safety Level</b>	3	3	3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	28	28	14
<b>General Characteristics</b>			
Number of Employees with Access to Select Agents	5	30	80
Turnover Rate	0.15	15%	0.15
Number of New Employees per Year	1	6	14
Number of Employees with Access to Select Agent Areas but not to the Select Agents	0	5	10
Number of Entity Owners	8	10	12
Number of Times that Select Agents Are Accessed Per Year			
Toxins	100	150	400
Biological Agents	100	200	400
Number of Buildings in Which Select Agents Are Used	1	4	5
Number of Floors on Which Select Agents Are Used	1	4	5
Number of Rooms Select Agents Used or Stored	2	10	20
Toxins Used at the Facility	Yes	Yes	Yes
Number of Select Agents	3	10	20
<b>Registration</b>			
Number of Registration Amendments Per Year	0.5	1	2
Number of Notifications of Total Stock Destruction Per Year	0.33	0.33	0.33
<b>Safety Characteristics</b>			
Biological Safety Level	3	3	3
Number of RO Inspections Per Year	3	3	3
Safety Plan In Place	Yes	Yes	Yes
Inventory Tracking System	Yes	Yes	Yes
<b>Security Characteristics</b>			
Baseline Security Measures In Place			
Guard at Entrance	No	No	No
Intrusion Detection System (e.g., alarm)	No	No	Yes
Card Key System	Yes	No	No
Locks on Select Agent Storage Cabinets	Yes	Yes	Yes
Select Agent Sign-out/Sign-in System	Yes	Yes	Yes
Risk Based Security Plan In Place	No	No	No

<b>Facility Type</b>	University	University	University
<b>Biological Safety Level</b>	3	3	3
<b>Facility Size</b>	S	M	L
<b>Number of Facilities</b>	28	28	14
Non-Risk Based Security Plan In Place	No	No	No
Number of Times Security System is Performance Tested Per Year	1	2	2
Number of Times Visitors are On Site Per Year	6	12	24
Number of Security Personnel	3	3	5
<b>Baseline Background Checks</b>			
Criminal Only	Yes	No	Yes
Government Secret	No	No	No
Number of Existing Staff Requiring Background Checks	5	33	85
<b>Training</b>			
Number of Employees Assigned to Work With Select Agents for the First Time Per Year	1	6	14
<b>Transfers and Notification</b>			
Number of Transfers Per Year	1	2	10

## **Appendix 3 – Unit Costs**

## APPENDIX 3: UNIT COSTS

The unit costs presented in this appendix are based on the research conducted as part of this study. This research includes internet research as well as telephone calls to vendors (e.g., Fisher Scientific, locksmiths) and governmental agencies (e.g., the Bureau of Labor Statistics). Individual citations for each unit cost are documented within the spreadsheet model.

<b>Shipping Options</b>	<b>Rate</b>	
<b>Federal Express</b>	\$ 10.00	Estimated Average Rate
<b>US Postal Service Rates</b>		
1 ounce letter USPS	\$ 0.37	
2 ounce letter USPS	\$ 0.60	
3 ounce letter USPS	\$ 0.83	
4 ounce letter USPS	\$ 1.06	
5 ounce letter USPS	\$ 1.29	
6 ounce letter USPS	\$ 1.52	
7 ounce letter USPS	\$ 1.75	
8 ounce letter USPS	\$ 1.98	
9 ounce letter USPS	\$ 2.21	
 <b>Fingerprint Fee</b>	 \$ 66.00	
 <b>Biological Safety Cabinet</b>		
Equipment Cost	\$ 6,660.00	
Certification Cost	\$ 1,100.00	
 <b>Eye Wash Station</b>	 \$ 60.00	
 <b>Retrofitting Storage Cabinets with Locks</b>	 \$ 100.00	
 <b>Card Key System</b>		
Access Control Software	\$ 3,000.00	
Computer to Run Software and Operate the System	\$ 2,000.00	
Access Control Panels, one per 20 card readers	\$ 27,500.00	
Card Readers	\$ 2,750.00	
New Cards	\$ 12.00	
Annual Maintenance Contract for Large Facilities	\$ 10,000.00	

**Intrusion Detection System**

## Motion Detection System - Equipment &amp; Installation

## Per Lab Room Costs

Key Pad and Focus Panel	\$	800.00
Balanced Magnetic System for Door	\$	85.00
Motion Detector	\$	75.00
Installation	\$	2,000.00

## Motion Detection System - Annual Costs

Maintenance Contract	\$	200.00
Monitoring Fee	\$	600.00
High Security Line	\$	400.00
Total Annual Costs	\$	1,200.00

**Cost of a Filing Cabinet**                      \$            400.00

**Cost of a Lock Box**                                \$            100.00

<b>Legal</b>	\$	108.35 /hour
<b>Managerial</b>	\$	86.09 /hour
<b>Technical</b>	\$	69.43 /hour
<b>Clerical</b>	\$	29.57 /hour
<b>Security Guard</b>	\$	20.86 /hour

**Hourly Rates**

Legal	\$	108.35 /hour
Managerial	\$	86.09 /hour
Technical	\$	69.43 /hour
Clerical	\$	29.57 /hour
Security Guard	\$	20.86 /hour

**Derivation of Hourly Rates**

Labor Category	2000 Unloaded Rates	Fringe Multiple	2000 Fringe Loaded Rates	Overhead Multiple	2000 Loaded Rates	ECI Multiple	2002 Loaded Rates
Legal	\$ 43.90	40%	\$ 61.46	63%	\$ 100.18	8.2%	\$ 108.35
Managerial	\$ 34.88	40%	\$ 48.83	63%	\$ 79.60	8.2%	\$ 86.09
Technical	\$ 28.13	40%	\$ 39.38	63%	\$ 64.19	8.2%	\$ 69.43
Clerical	\$ 11.98	40%	\$ 16.77	63%	\$ 27.34	8.2%	\$ 29.57
Security Guard	\$ 8.45	40%	\$ 11.83	63%	\$ 19.28	8.2%	\$ 20.86

**Loadings for Raw Labor**

Fringe 40%

Overhead 63%

Source: 7th Annual Grant Thornton "Government Contractor Industry Survey: The Pulse of a Vital Industry" for the Biomedical Industry.

Employment Cost Index (ECI) Adjustment between 2000 and 2002 8.2%

Employment Cost Index news release 7/25/02, Table B

% Increase over Previous Year for Compensation Costs

2000 4.6%

2001 4.0%

2002 4.0%

## **Appendix 4 – Other Model Inputs**



### Information on the Distribution of Facilities Across BSL Levels and Entity Types

Biosafety Level	% in Each Category
Toxins Only	23%
2	33%
3	42%
4	2%
	100%

Source: CDC Power Point presentation titled "Select Agent Rule"

Types of Facilities	% in Each Category
Government - DOD	7%
Government - CDC	13%
Subtotal Federal	20%
University	37%
Research Institution	21%
Commercial	21%
State	1%
	100%

Source: CDC Power Point presentation titled "Select Agent Rule"

### Financial Information

Discount Rate 7%

### Rule Familiarization and Number of Select Agents Information

	Rule Familiarization Hours for:					Number of Select Agents by Size
	Facility Size	Legal Staff	Managerial Staff	Technical Staff	Clerical Staff	
Small Facilities	S	1	1	1	0	3
Medium Facilities	M	2	2	2	0	10
Large Facilities	L	3	3	3	0	20

**Review Select Agent List Annually**

	Hours to Complete the Select Agent List by Facility Size		
	Small	Medium	Large
Legal Hours	0.0 hr	0.0 hr	0.0 hr
Managerial Hours	0.5 hr	0.5 hr	0.5 hr
Technical Hours	0.0 hr	0.0 hr	0.0 hr
Clerical hours	0.0 hr	0.0 hr	0.0 hr

**Exempt Labs****73.6(a)(2) Report to CDC that Select Agents Identified**

	Hours
Legal Hours	0.0 hr
Managerial Hours	0.5 hr
Technical Hours	0.5 hr
Clerical hours	0.0 hr

Number of Reports per Year 1,000

**73.6(a)(7) Prepare & Submit Record of Transfer or Destruction**

	Hours
Legal Hours	0.0 hr
Managerial Hours	0.5 hr
Technical Hours	1.0 hr
Clerical hours	0.0 hr

Number of Records Prepared and Submitted 1,000

**73.6(c) Submit Application for Exemption - Investigations**

	Hours
Legal Hours	0.0 hr
Managerial Hours	1.2 hr
Technical Hours	0.0 hr
Clerical hours	0.0 hr

Number of Exemption Applications 12

**73.6(d) Submit Application for Exemption - Public Health Emergency**

	Hours
Legal Hours	0.0 hr
Managerial Hours	1.2 hr
Technical Hours	0.0 hr
Clerical hours	0.0 hr
Number of Exemption Applications	5

**Registration****73.7(b) Initial Registration**

	Percent of Hours to Complete the Registration Application		
	Small	Medium	Large
Legal Hours	12.5%	12.5%	12.5%
Managerial Hours	62.5%	62.5%	62.5%
Technical Hours	12.5%	12.5%	12.5%
Clerical hours	12.5%	12.5%	12.5%

Hours to Complete Registration  
Application for Entity and One Lab  
Room

3.75 hr

Number of Hours per Additional Lab  
Room

0.75 hr

Registration Package Delivered by:  
Number of Packages:

Federal Express



1

**73.7(d) Registration Amendment**

	Hours to Complete the Registration Amendment by Facility Size		
	Small	Medium	Large
Legal Hours	0.5 hr	0.5 hr	0.5 hr
Managerial Hours	0.5 hr	0.5 hr	0.5 hr
Technical Hours	0.5 hr	0.5 hr	0.5 hr
Clerical hours	0.0 hr	0.0 hr	0.0 hr

	Facility Size	Number of Registration Amendments Per Year
Small Facilities	S	0.5
Medium Facilities	M	1
Large Facilities	L	2

Registration Package Delivered by: Federal Express

Number of Packages: 1

**73.7(g) Re-Registration**

	Percent of Hours to Complete the Re-Registration Application		
	Small	Medium	Large
Legal Hours	12.5%	12.5%	12.5%
Managerial Hours	62.5%	62.5%	62.5%
Technical Hours	12.5%	12.5%	12.5%
Clerical hours	12.5%	12.5%	12.5%

Hours to Complete Re-Registration  
Application for Entity and One Lab  
Room

3.00 hr

Number of Hours per Additional Lab  
Room

0.75 hr

Frequency in Years the Facilities Must  
Re-register

3

Registration Package Delivered by: Federal Express

Number of Packages: 1

**73.7(h) Notification of Total Stock Destruction**

	Hours to Complete Notification of Stock Destruction by Facility Size		
	Small	Medium	Large
Legal Hours	0.0 hr	0.0 hr	0.0 hr
Managerial Hours	0.5 hr	0.5 hr	0.5 hr
Technical Hours	0.0 hr	0.0 hr	0.0 hr
Clerical hours	0.0 hr	0.0 hr	0.0 hr

Registration Package Delivered by: Federal Express

Number of Packages: 1

**Clerical Hours to Obtain Applications and Submit Applications and Notices**

Clerical hours 0.1 hr

**Entity and Individual Database Review**

**73.8(c) Risk Assessment for Entity & Entity Owners**

	Hours to Prepare Entity Database Review Application
Legal Hours	0.5 hr
Managerial Hours	0.5 hr
Technical Hours	1.0 hr
Clerical hours	0.0 hr

	Number of Entity Owners		
Entity Type	Small	Medium	Large
Federal	0	0	0
State	0	0	0
University	8	10	12
Commercial	0	4	12
Research Institution	0	4	8

	Hours to Prepare a New Database Review Application
Legal Hours	0.0 hr
Managerial Hours	6.0 hr
Technical Hours	0.0 hr
Clerical hours	0.0 hr

Registration Package Delivered by: Federal Express ▼

**73.8(c) Risk Assessment for Existing Staff**

Percent of Employees with Access to  
Select Agent Areas (but not to select  
agents) that Will Submit Information for  
Database Review


50%

Percent of Employees with Access to  
Select Agent Areas (but not to select  
agents) that Will be Escorted or Who  
Will Lose Access Privileges

50%


---

 100%

	Hours to Prepare a New Database Review Application	Hours for Staff Who Obtained Clearance More Than Three years ago
Legal Hours	0.0 hr	0.0 hr
Managerial Hours	0.0 hr	0.0 hr
Technical Hours	6.0 hr	2.0 hr
Clerical hours	0.0 hr	0.0 hr
Security staff hours to process and submit one application	1.5 hr	0.5
Registration Package Delivered by:	Federal Express	

**73.8(c) Risk Assessment for New Staff**


The hours are the same as for existing staff under 73.8(c)

Registration Package Delivered by: Federal Express 

Number of Packages: 1

**73.8(f) Risk Assessment Re-Application**

	Hours to Prepare a New Database Review Application for Owners	Hours to Prepare a New Database Review Application for Owners
Legal Hours	0.0 hr	0.0 hr
Managerial Hours	0.0 hr	2.0 hr
Technical Hours	2.0 hr	0.0 hr
Clerical hours	0.0 hr	0.0 hr
Security staff hours to process and submit one application	0.5 hr	

Registration Package Delivered by: Federal Express 

Number of Packages: 1

Frequency in Years the Individuals Must Re-apply for Clearance: 5

## Safety

### 73.10(a) Develop and Implement Safety Plan

	Facility Size	Number of Technical Hours to Develop a New Safety Plan	Number of Technical Hours to Develop Safety Plan if Facility Already Has a Safety Plan
Small Facilities	S	80.0 hr	40.0 hr
Medium Facilities	M	120.0 hr	60.0 hr
Large Facilities	L	160.0 hr	80.0 hr

Legal Time as a Percent of Technical Time to Prepare the Safety Plan	0%
Managerial Time as a Percent of Technical Time to Prepare the Safety Plan	10%
Clerical Time as a Percent of Technical Time to Prepare the Safety Plan	15%

Safety Training per Employee to Inform Them of the New Requirements  
Technical Hours 2.0 hr

**73.10(b) RO Safety Inspections**

Biological Safety Level	Number of RO Inspections per Year
Out of Compliance	2
2	2
2-3	3
3	3
4	4

**Hours for RO Inspection by Facility Size**

	Small	Medium	Large
Managerial Hours	1.0 hr	1.0 hr	1.0 hr
Technical Hours	0.0 hr	0.0 hr	0.0 hr

**Hours to Document RO Inspection by Facility Size**

	Small	Medium	Large
Managerial Hours	0.3 hr	0.3 hr	0.3 hr
Technical Hours	0.0 hr	0.0 hr	0.0 hr

**Hours to Address Findings From RO Inspection by Facility Size**

	Small	Medium	Large
Managerial Hours	0.1 hr	0.1 hr	0.1 hr
Technical Hours	0.3 hr	0.3 hr	0.3 hr

**Security****73.11(a) Develop and Implement Security Plan**

Security Plan Items	Facility Size	Technical Hours To:		
		Develop a New Security Plan	Upgrade an Existing Security Plan	Performance Test Security System
Small Facilities	S	120	60	0
Medium Facilities	M	240	120	0
Large Facilities	L	360	180	0



Legal Time as a Percent of Technical Time to Prepare the Security Plan	0%
Managerial Time as a Percent of Technical Time to Prepare the Security Plan	10%
Clerical Time as a Percent of Technical Time to Prepare the Security Plan	15%

Hours Required to Train Technical Staff  
on Security Requirements 1.0 hr

### 73.11(c) Review and Revise Security Plan

Security Plan Items	Facility Size	Review and Revise Security Plan
Small Facilities	S	20
Medium Facilities	M	40
Large Facilities	L	60

### 73.11 NOT REQUIRED IN 12/06/02 DRAFT - Test Workers and Visitors on Security Reqs

#### Number of Times Visitors Come to the Lab

	Facility Size	Number of Visits
Small Facilities	S	6
Medium Facilities	M	12
Large Facilities	L	24

Duration of Training on Security  
Requirements for Visitors 0.0 hr

**73.11(d) Limit Access to Areas and Agents**Hours to Manage Access Controls, Such as Distributing Keys and  
Maintaining Authorized Personnel Lists

	Small	Medium	Large
Legal Hours	0.0 hr	0.0 hr	0.0 hr
Managerial Hours	2.0 hr	2.0 hr	4.0 hr
Technical Hours	2.0 hr	6.0 hr	12.0 hr
Clerical hours	0.0 hr	0.0 hr	0.0 hr

**Card Key Access System**

Number of Card Readers per Access Control Panel	20
Percent of Total Card Key Cards that need to be Purchased Each Year	20%

Card Key System Maintenance Contract	Facility Size	Percent of Large Annual Maintenance Contract
Small Facilities	S	50%
Medium Facilities	M	75%
Large Facilities	L	100%

**Intrusion Detection System**

Number of Motion Detectors per room	4
Total One Time Motion Detection System Installation Cost per Room	\$ 3,185

**Day-time unarmed Guards**

Number of Guards per Day	2
Number of Hours Per Day Per Guard	8.0 hr
Number of Work Days Per Year	250
Annual Cost of Day-time unarmed Guards	\$ 83,426

## Training Information

### 73.13(b) Train First Time Users of Agents

Duration of Initial Training 6.0 hr

	No Safety Plan in Place	Safety Plan in Place
Number of Course Development Hours per Hour of Class Time	8.0 hr	4.0 hr
	Hours for Development of Training if No Safety Plan in Place	Hours for Development of Training if A Safety Plan is in Place
Managerial Hours	4.0 hr	2.0 hr
Technical Hours	48.0 hr	24.0 hr
Clerical hours	8.0 hr	4.0 hr

### 73.13(b) Annual Refresher Training

Duration of Annual Refresher Training 3.0 hr

	No Safety Plan in Place	Safety Plan in Place
Number of Course Development Hours per Hour of Class Time	8.0 hr	4.0 hr
	Hours for Development of Training if No Safety Plan in Place	Hours for Development of Training if A Safety Plan is in Place
Managerial Hours	2.0 hr	1.0 hr
Technical Hours	24.0 hr	12.0 hr
Clerical hours	4.0 hr	3.0 hr

	Hours for Delivering Training
Managerial Hours	0.5 hr
Technical Hours	6.0 hr
Clerical hours	2.0 hr

**73.13(d) Lab Director Certification of Adequate Skills**

	Hours
Legal Hours	0.00 hr
Managerial Hours	1.00 hr
Technical Hours	0.00 hr
Clerical hours	0.00 hr

Certification Letter Delivered by: 

US Postal Service Rates	▼
-------------------------	---

Number of Packages: 1

**73.13(e) Training, Testing and Record Maintenance**

Cost of Maintaining Records	Hours To Maintain Training and Testing Records		
	Small	Medium	Large
Managerial Hours	0.5 hr	2.0 hr	4.0 hr
Technical Hours	0.0 hr	0.0 hr	0.0 hr
Clerical hours	0.0 hr	0.0 hr	0.0 hr

**Transfers****73.14(c) Submit Form EA-101 Prior to Transfer**

	Hours
Legal Hours	0.00 hr
Managerial Hours	0.50 hr
Technical Hours	1.25 hr
Clerical hours	0.00 hr

**73.14(d)(1) NOT REQUIRED IN 12/06/02 DRAFT - Verify Certificates of Registration**

	Hours
Legal Hours	0.0 hr
Managerial Hours	0.0 hr
Technical Hours	0.0 hr
Clerical hours	0.0 hr

**73.14(f) Acknowledge Receipt of Select Agents**

	Hours
Legal Hours	0.00 hr
Managerial Hours	0.00 hr
Technical Hours	0.00 hr
Clerical hours	0.00 hr
Clerical hours to submit form	0.1 hr

**73.14(g) Notify CDC if Agents Not Received**

	Hours
Legal Hours	0.0 hr
Managerial Hours	0.5 hr
Technical Hours	0.0 hr
Clerical hours	0.0 hr

**Records Information****73.15(a) Maintain List of Individuals with Access to Agents**

	Hours
Legal Hours	0.0 hr
Managerial Hours	1.0 hr
Technical Hours	0.0 hr
Clerical hours	0.0 hr

**73.15(b) Maintain Inventory of Select Agents**

## Cost of Annual Inventory Reconciliation

	Hours
Managerial Hours	2.0 hr
Technical Hours	2.0 hr
Clerical hours	0.0 hr

## Cost of Maintaining Toxin Inventory

	Hours
Managerial Hours	0.0 hr
Technical Hours	0.2 hr

## Cost of Maintaining Biological Agent Inventory

	Hours
Managerial Hours	0.0 hr
Technical Hours	0.1 hr

**73.15(c) Maintain Room and Agent Access Records**

## Cost of Maintaining Room Access Records

	Hours
Legal Hours	0.0 hr
Managerial Hours	2.0 hr
Technical Hours	8.0 hr
Clerical hours	0.0 hr

## Cost of Maintaining Agent Access Records

	Hours
Legal Hours	0.0 hr
Managerial Hours	2.0 hr
Technical Hours	8.0 hr
Clerical hours	0.0 hr

**73.15(d) Ensure Records are Accurate**

## Number of Times per Year Facilities

Audit their Records to Ensure they Are Accurate 2

	Hours
Legal Hours	0.0 hr
Managerial Hours	0.0 hr
Technical Hours	1.0 hr
Clerical hours	0.0 hr

## **Appendix 5 – Revenue Data for Economic Impact Analysis**

## Appendix 5: Revenue Data for Economic Impact Analysis

<b>NAIC 325412: Pharmaceutical Preparation Manufacturing</b>				
<b>Employment (Range of Employees)</b>	<b>Number of Establishments</b>	<b>Percentage of Total Establishments</b>	<b>Average Value of Shipments (1997 dollars)</b>	<b>Average Value of Shipments (2002 dollars)</b>
1-4	179	21.4%	\$502,670	\$549,545
5-9	88	10.5%	\$1,562,318	\$1,708,005
10-19	128	15.3%	\$3,528,211	\$3,857,218
20-49	138	16.5%	\$7,814,616	\$8,543,332
50-99	85	10.2%	\$29,248,718	\$31,976,174
100-249	107	12.8%	\$73,334,458	\$80,172,929
250-499	62	7.4%	\$245,436,371	\$268,323,422
500-999	29	3.5%	\$473,131,207	\$517,250,902
1,000-2,499	15	1.8%	\$610,884,267	\$667,849,496
2,500+	6	0.7%	\$2,888,083,667	\$3,157,398,751
<b>Total</b>	<b>837</b>	<b>100.0%</b>	<b>\$80,669,109</b>	<b>\$88,191,539</b>

1997 data from US Census Bureau.

"Average Value of Shipments" calculated by dividing Total Value of Shipments by the Number of Establishments.

Figures updated to 2002 dollars using GDP deflators from U.S. Department of Commerce: Bureau of Economic Analysis

<b>NAIC 325413: In-Vitro Diagnostic Substance Manufacturing</b>				
<b>Employment (Range of Employees)</b>	<b>Number of Establishments</b>	<b>Percentage of Total Establishments</b>	<b>Average Value of Shipments (1997 dollars)</b>	<b>Average Value of Shipments (2002 dollars)</b>
1-4	42	18.6%	\$283,714	\$310,171
5-9	23	10.2%	\$1,205,435	\$1,317,842
10-19	29	12.8%	\$1,877,655	\$2,052,747
20-49	47	20.8%	\$5,398,511	\$5,901,924
50-99	33	14.6%	\$11,873,606	\$12,980,825
100-249	28	12.4%	\$31,299,821	\$34,218,544
250-499	15	6.6%	\$119,661,933	\$130,820,462
500-999	6	2.7%	\$151,504,500	\$165,632,362
1,000-2,499	2	0.9%	*	*
2,500+	1	0.4%	*	*
<b>Total</b>	<b>226</b>	<b>100.0%</b>	<b>\$36,043,735</b>	<b>\$39,404,829</b>

1997 data from US Census Bureau.

"Average Value of Shipments" calculated by dividing Total Value of Shipments by the Number of Establishments.

Figures updated to 2002 dollars using GDP deflators from U.S. Department of Commerce: Bureau of Economic Analysis

\* Withheld to avoid disclosing data of individual companies; data are included in higher level totals.



<b>NAIC 325414: Biological Product (except Diagnostic) Manufacturing</b>				
<b>Employment (Range of Employees)</b>	<b>Number of Establishments</b>	<b>Percentage of Total Establishments</b>	<b>Average Value of Shipments (1997 dollars)</b>	<b>Average Value of Shipments (2002 dollars)</b>
1-4	88	24.2%	\$353,909	\$386,911
5-9	51	14.0%	\$900,706	\$984,697
10-19	53	14.6%	\$2,169,566	\$2,371,879
20-49	100	27.5%	\$4,146,000	\$4,532,616
50-99	27	7.4%	\$11,068,741	\$12,100,906
100-249	21	5.8%	\$47,749,238	\$52,201,876
250-499	14	3.8%	\$53,877,929	\$58,902,069
500-999	7	1.9%	\$314,155,143	\$343,450,249
1,000-2,499	3	0.8%	\$274,769,667	\$300,392,060
2,500+	0	0.0%	\$0	\$0
<b>Total</b>	<b>364</b>	<b>100.0%</b>	<b>\$15,620,723</b>	<b>\$17,077,362</b>

1997 data from US Census Bureau.

"Average Value of Shipments" calculated by dividing Total Value of Shipments by the Number of Establishments.

Figures updated to 2002 dollars using GDP deflators from U.S. Department of Commerce: Bureau of Economic Analysis

<b>NAIC: 541710: Research and Development in the Physical, Engineering, and Life Sciences (Averages of taxable and nontaxable, operated for entire year)</b>				
<b>Employment (Range of Employees)</b>	<b>Number of Firms</b>	<b>Percentage of Total Firms</b>	<b>Average Revenue (1997 Dollars)</b>	<b>Average Revenue (2002 Dollars)</b>
0-5	2836	46.0%	\$303,843	\$332,177
5-9	1152	18.7%	\$842,234	\$920,772
10-19	831	13.5%	\$1,811,597	\$1,980,529
20-49	705	11.4%	\$4,253,538	\$4,650,182
50-99	270	4.4%	\$8,765,941	\$9,583,369
100-249	230	3.7%	\$19,335,752	\$21,138,820
250-499	71	1.2%	\$44,585,901	\$48,743,557
500-999	31	0.5%	\$109,633,000	\$119,856,326
1,000+	35	0.6%	\$397,893,971	\$434,997,761
<b>Total</b>	<b>6161</b>	<b>100.0%</b>	<b>\$5,458,639</b>	<b>\$5,967,659</b>

1997 data from US Census Bureau.

"Average Value of Shipments" calculated by dividing Total Value of Shipments by the Number of Establishments.

Figures updated to 2002 dollars using GDP deflators from U.S. Department of Commerce: Bureau of Economic Analysis

<b>NAIC 621511: Medical Laboratories (All taxable, operated for entire year)</b>				
<b>Employment Size (Range of Employees)</b>	<b>Number of Firms</b>	<b>Percentage of Total Firms</b>	<b>Average Revenue (1997 Dollars)</b>	<b>Average Revenue (2002 Dollars)</b>
0-5	889	37.9%	\$288,233	\$315,111
5-9	527	22.5%	\$687,846	\$751,988
10-19	383	16.3%	\$1,348,120	\$1,473,833
20-49	303	12.9%	\$2,746,957	\$3,003,112
50-99	110	4.7%	\$6,070,464	\$6,636,537
100-249	70	3.0%	\$13,349,700	\$14,594,565
250-499	42	1.8%	\$30,681,952	\$33,543,058
500-999	12	0.5%	*	*
1,000+	7	0.3%	*	*
<b>Total</b>	<b>2343</b>	<b>100.0%</b>	<b>\$4,374,344</b>	<b>\$4,782,254</b>

1997 data from US Census Bureau.

"Average Value of Shipments" calculated by dividing Total Value of Shipments by the Number of Establishments.

Figures updated to 2002 dollars using GDP deflators from U.S. Department of Commerce: Bureau of Economic Analysis

\* Withheld to avoid disclosing data of individual companies; data are included in higher level totals.

<b>NAIC 622110: General Medical and Surgical Hospitals (Averages of taxable and nontaxable, operated for entire year)</b>				
<b>Employment (Range of Employees)</b>	<b>Number of Firms</b>	<b>Percentage of Total Firms</b>	<b>Average Revenue (1997 Dollars)</b>	<b>Average Revenue (2002 Dollars)</b>
0-5	0	0.0%	\$0	\$0
5-9	0	0.0%	\$0	\$0
10-19	4	0.1%	\$1,164,000	\$1,272,544
20-49	60	1.6%	\$2,256,000	\$2,466,373
50-99	351	9.6%	\$3,777,370	\$4,129,612
100-249	886	24.1%	\$9,054,462	\$9,898,794
250-499	661	18.0%	\$23,154,676	\$25,313,860
500-999	630	17.1%	\$51,424,079	\$56,219,398
1,000+	1082	29.5%	\$272,749,909	\$298,183,960
<b>Total</b>	<b>3674</b>	<b>100.0%</b>	<b>\$95,891,655</b>	<b>\$104,833,594</b>

1997 data from US Census Bureau.

"Average Value of Shipments" calculated by dividing Total Value of Shipments by the Number of Establishments.

Figures updated to 2002 dollars using GDP deflators from U.S. Department of Commerce: Bureau of Economic Analysis

\* Withheld to avoid disclosing data of individual companies; data are included in higher level totals.

<b>NAIC 611310: Colleges and Universities</b>	
<b>Revenue Range</b>	<b>Number of Schools</b>
\$0 - \$6 million	399
\$6 million - \$10 million	180
\$10 million - \$15 million	184
\$15 million - \$20 million	152
\$20 million - \$40 million	386
\$40 million - \$60 million	192
\$60 million - \$100 million	190
\$100 million - \$200 million	131
\$200 million - \$500 million	110
\$500 million - \$1 billion	53
\$1 billion - \$1.5 billion	12
\$1.5 billion - \$2 billion	5
\$2 billion +	2
<b>Total</b>	<b>1996</b>

1996 data from the National Center for Educational Statistics.

Revenue ranges have not been adjusted for subsequent inflation.

Data cover colleges and universities offering bachelors, masters, and doctoral degrees.